"DRAFT" PROGRAM

(VERSION OF APRIL 18, 2002)

MISSISSIPPI RIVER CLIMATE & HYDROLOGY CONFERENCE

New Orleans, LA
May 13-17, 2002

Sunday, May 12, 2002

4:00pm - 8:00pm Registration (Garden Room)

6:00pm - 8:00pm Icebreaker Reception (Wyndham Hotel – Riverbend Terrace)

Monday, May 13, 2002

7:30 am - 5:00 pm Registration (Prefunction Area 3rd Floor)

8:30am - 10:00am Session A.1 Plenary (Magnolia III)

Chair: Rick Lawford

8:30am - 9:00am Welcome by the Mayor & Others (TBD)

9:00am - 9:30am **GCIP AS A PATHFINDER FOR GEWEX (**Paul Try)

9:30am - 10:00am **GCIP AND THE WATER AND ENERGY SYNTHESIS (WEBS)** (John Roads)

10:30am - 12:10pm Session A.2 Water and Energy Budget (I) (Magnolia III)

Chair: John Roads

1. **CLOSING WATER BUDGETS OVER CONTINENTAL-SCALE AREAS:** Evgeney S. Yarosh, NOAA/NWS/NCEP/CPC, Camp Springs, MD; and R. W. Higgins, W. Shi, and C. F. Ropelewski
2. **THE MESOSCALE NATURE OF THE WATER AND ENERGY BUDGETS PART 1: THE ETA MODEL EXPERIENCE:** Ernesto Hugo Berbery, University of Maryland, College Park, MD; and K. Mitchell and Y. Luo

3. **THE MESOSCALE NATURE OF THE WATER AND ENERGY BUDGETS PART 2: EVALUATION OF THE REGIONAL REANALYSIS:** Yan Luo, University of Maryland, College Park, MD; and E. H. Berbery, E. Kalnay, P. Shafran, F. Mesinger, G. DiMego, and K. Mitchel
4. **PRELIMINARY TESTS WITH RUC COUPLED DATA ASSIMILATION SYSTEM (CDAS):** Tatiana G. Smirnova, CIRES/Univ. of Colorado, Boulder, CO; and D. Kim, S. G. Benjamin, and J. M. Brown
5. **REGIONAL CLIMATE MODEL PERFORMANCE ANALYSIS AND COMPARISON FOR THE FIFE REGION:** Jason Evans, Yale, New Haven, CT; and R. Oglesby and W. Lapenta
6. **EFFECTS OF SPATIALLY-DISTRIBUTED PRECIPITATION AND SOIL HETEROGENEITY ON SURFACE WATER AND ENERGY BUDGETS:** Xu Liang, University of California, Berkeley, CA; and J. Guo

10:30am - 12:10pm Session A.3 GAPP Data (Azalea II)

1. **DEVELOPING A DATA SYSTEM FOR GCIP:** John Leese, GEWEX
2. **GCIP/GAPP DATA MANAGEMENT:** Steve William, UCAR/JOSS
3. **DEVELOPMENT OF COMPOSITE DATA SETS FOR GCIP:** Scot M. Loehrer,UCAR, Boulder, CO; and L. E. Cully, D. R. Gallant, J. Goldstein, D. Stott, and S. F. Williams
4. **HANDLE DATA FROM MESOSCALE MODELS:** Roy L. Jenne, NCAR,Boulder, CO
5. **THE OKLAHOMA MESONET: AN INFRASTRUCTURE FOR QUANTIFYING LAND-ATMOSPHERE INTERACTIONS:** Jeffrey B. Basara, University of Oklahoma, Norman, OK; and R. A. McPherson, D. S. Arndt, B. G. Illston, M. J. Haugland, C. A. Fiebrich, and K. C. Crawford
6. **REVIEW OF NWS-CPC'S MONITORING AND PREDICTION OF US SOIL MOISTURE AND ASSOCIATED LAND SURFACE VARIABLES:** Huug M. van den Dool, Climate Prediction Center, Camp Springs,MD; and Y. Fan and J. Huang

1:30pm - 6:00pm Session A.4 GAPP Working Groups (Magnolia III)

1:30pm - 1:50pm **OVERVIEW OF GAPP** (Rick Lawford)

1:50pm - 2:10pm **NASA ASPECTS OF GAPP** (Jared Entin)

2:10pm - 2:30pm **IMPLEMENTING GAPP** (Jin Huang)

3:00pm - 6:00pm **GAPP WORKING GROUPS (Azalea II, Magnolia I, II and III)**

6:00 pm -7:00 pm **POSTER SETUP (Azalea I)**

7:00 pm - 9:00 pm **PUBLIC LECTURES (*Magnolia III)***

Tuesday, May 14, 2002

7:30 am - 5:00 pm Registration **(**Prefunction Area 3rd Floor)

8:30am - 10:00am Session B.1 Plenary (Magnolia III)

Chair: Paul Try

8:30am - 9:00am **THE WCRP AND PREDICTION ISSUES** (David Carson)

9:00am - 09:30am **CEOP AND THE CONTRIBUTION TO GCIP/GAPP (**Toshio Koike)

9:30am - 10:00am **NASA AND LAND DATA ASSIMILATION SYSTEMS** (Paul Houser)

10:10am – 5:00pm Stakeholders Meeting (Magnolia III)

10:15am – 10:20am **Welcome and Introduction** (Rick Lawford)

10:20am – 10:35am **Mississippi/Missouri System Overview** (Larry Banks)

10:35am – 11:00am **Key Findings of the GAPP Program of Interest to Stakeholders** (Rick Lawford, Dennis Lettenmaier)

11:00 am – 12:15pm **Climate Information & Applications, Products Available**
Chair: Jay Grymes

1. **Climate Prediction Center**: Wayne Higgins
2. **National Centers for Environmental Prediction (NCEP)**: Ken Mitchell
3. **NCEP Regional Reanalysis, Status and Plans**: Fedor Mesinger
4. **River Forecast Center, Slidell:** Dave Reed
5. **Weather Forecast Office**: Paul Trotter

1:15pm – 1:30pm **US Army Corps of Engineers: Issues and Information Needs in Managing the Mississippi/Missouri System.** Larry Banks, USACE

1:30pm – 3:15pm **Sectoral Issues, Weather/Climate Needs Panel**
Chair: Kathy Jacobs

Water Management District, Municipal Supplier

1. Agriculture
2. Transportation/Ports: Mike Marshall, Chair, Lower Ohio and Mississippi Committee
3. Public Health/Emergency Management
4. Energy
5. Pollution control
6. Environmental restoration/management: Doug Daigle, Mississippi River Basin Alliance

3:30pm – 4:00pm Open Discussion of Products and Needs
Facilitator: Kathy Jacobs

10:30am - 12:10pm Session B.2 Water and Energy Budget (II) (Magnolia I)

Chair: John Roads

1. **ATMOSPHERIC WATER AND ENERGY BUDGET OF THE MISSISSIPPI RIVER BASIN AND A THIRD INDEPENDENT ESTIMATE OF RUNOFF CONSTRAINED BY TOP-OF-ATMOSPHERE RADIATION:** Hideki Kanamaru, Boston University, Boston, MA; and G. Salvucci and D. Entekhabi
2. **INTER-ANNUAL VARIATIONS OF THE NEAR-SURFACE SOIL FREEZE/THAW CYCLE IN THE CONTIGUOUS UNITED STATES:** Tingjun Zhang, CIRES/Univ. of Colorado, Boulder, CO; and R. L. Armstrong and J. Smith
3. **THE SURFACE ENERGY BALANCE: BIOLOGICAL AND PHYSICAL CONTROLS:** Tilden P. Meyers, NOAA, Oak Ridge, TN; and S. Hollinger
4. **MODULATION OF THE GREAT PLAINS LOW-LEVEL JET AND MOISTURE TRANSPORTS BY OROGRAPHY AND LARGE-SCALE CIRCULATIONS:** Jan Paegle, Meteorology Department University of Utah, Salt Lake City, UT; and L. A. Byerle
5. **MODEL-BASED MOISTURE CYCLE AND DIVERGENCE QUANTITIES OVER THE UNITED STATES:** David A. Salstein, AER, Lexington, MA; and R. D. Rosen and H. Kanamaru
6. **EVALUATING WATER AND ENERGY BUDGETS ACROSS THE MISSISSIPPI RIVER BASIN THROUGH REMOTE SENSING:** John Norman, University of Wisconsin-Madison, Madison, WI; and M. Anderson, J. Mecikalski, R. Torn, and G. Diak

10:30am - 12:10pm Session B.3 Predictability & Prediction System (I) (Azalea II)

Chair: Ken Mitchell

1. **DYNAMICAL SEASONAL CLIMATE PREDICTABILITY OVER THE GAPP DOMAIN:** Paul Dirmeyer, COLA, Calverton, MD; and C. A. Schlosser
2. **THE IMPACT OF REALISTIC SNOW CONDITIONS ON PREDICTIVE SKILL IN TWO CLIMATE MODELS:** C. Adam Schlosser, GEST/UMBC/NASA, Greenbelt, MD; and D. Mocko
3. **SOIL MOISTURE AND SNOW COVER: ACTIVE OR PASSIVE ELEMENTS OF CLIMATE:** Robert J. Oglesby, NASA/MSFC, Huntsville, AL; and S. Marshall, D. J. Erickson, III, F. R. Robertson, and J. O. Roads
4. **ENSEMBLE CANONICAL CORRELATION PREDICTION OF SUMMER SEASON PRECIPITATION OVER THE UNITED STATES:** Kingtse C. Mo, NOAA/NWS/NCEP/CPC, Camp Springs, MD
5. **PREDICTABILITY OF SEASONAL RUNOFF IN THE MISSISSIPPI RIVER BASIN:** Edwin P. Maurer, University of Washington, Seattle, WA; and D. P. Lettenmaier

1:30pm - 3:10pm Session B.4 Predictability & Prediction System (II) (Azalea II)

Chair: Ken Mitchell

1. **A SEASONAL SIMULATION OF PRECIPITATION OVER NORTH AMERICA WITH THE ETA REGIONAL CLIMATE MODEL:** Rongqian Yang, NOAA/NWS/NCEP, Camp Springs, MD; and K. Mitchell
2. **SPATIAL PATTERNS OF SOIL MOISTURE CONNECTED TO MONTHLY-SEASONAL PRECIPITATION VARIABILITY IN EAST ASIA:** Yongqiang Liu, Georgia Institute of Technology, Atlanta, Georgia; and R. Avissar
3. **ASSESSING SEASONAL SOIL MOISTURE SENSITIVITY WITH A REGIONAL MODEL:** Loren White, Jackson State University, Jackson, MS
4. **EFFECTS OF OROGRAPHY ON MESOSCALE ENSO PRECIPITATION ANOMALIES IN THE WESTERN US:** L. Ruby Leung, PNNL, Richland, WA; and Y. Qian, X. Bian, and A. Hunt
5. **REGIONAL CLIMATE MODEL DOWNSCALING SKILL OF NORTH AMERICAN PRECIPITATION:** Xin-Zhong Liang, University of Illinois at Urbana-Champaign, Champaign, IL; and L. Li, M. Ting, J. X. L. Wang, and K. E. Kunkel

1:30pm - 3:10pm Session B.5 Observation & Analysis of Precipitation Over the Americas (Magnolia I)

Chair: Phil Arkin

1. **THE DEVELOPMENT OF CONTINENTAL-SCALE PRECIPITATION ANALYSES BASED UPON COMBINATIONS OF IN-SITU AND REMOTELY SENSED OBSERVATIONS:** Phillip A. Arkin, ESSIC, University of Maryland, College Park, MD; and P. Xie
2. **ARCHIVAL PRECIPITATION DATA SET FOR THE GCIP DOMAIN:** Witold F Krajewski, IIHR Hydrosciences and Engineering, Iowa City, IA; and J. A. Smith, B. R. Nelson, A. Kruger, and M. L. Baeck
3. **SYNERGISTIC USE OF RADAR, SATELLITE, GAUGE, LIGHTNING, AND MODEL OUTPUT FOR FINE-SCALE PRECIPITATION ESTIMATION:** Jonathan (J.J.) Gourley, CIMMS/Univ. of Oklahoma, Norman, OK; and J. Zhang, R. Maddox, and K. Howard
4. **TOWARDS THE GLOBAL PRECIPITATION MEASUREMENT (GPM) MISSION: AN INTERNATIONAL PARTNERSHIP AND PRECIPITATION SATELLITE CONSTELLATION FOR SCIENTIFIC RESEARCH AND APPLICATIONS ON THE GLOBAL WATER AND ENERGY CYCLE**: J. Marshall Shepherd, NASA/GSFC, Greenbelt, MD; and E. A. Smith and A. V. Mehta
5. **INITIAL CONSIDERATIONS FOR A UNIFIED GPM LAND RAINFALL ALGORITHM**: Jeffrey R. McCollum, CICS, College Park, MD; and R. R. Ferraro

3:30pm - 4:30pm Poster Plenary (Azalea II)

Chair: Jared Entin

4:30pm - 6:00pm Poster Viewing & Reception (Azalea I)

1. **SENSITIVITY OF SOIL FREEZE/THAW CYCLES ON SURFACE ENERGY BALANCE**. Tingjun Zhang, CIRES/Univ. of Colorado, Boulder, CO; and F. Ling
2. **SECOND GEWEX/GLASS GLOBAL SOIL WETNESS PROJECT (GSWP2).** Paul A. Dirmeyer, COLA, Calverton, MD; and T. Oki
3. **MOISTURE AND HEAT FLUXES OVER SAGE WITH PATCHY SNOW COVER**. Larry Mahrt, Oregon State University, Corvallis, OR; and D. Vickers
4. **MOISTURE FROM TROPICAL NORTH ATLANTIC OCEAN: WHERE DOES IT FALL?.**Arief Sudradjat, Department of Civil and Environmental Engineering, University of Maryland, College Park, MD; and K. L. Brubaker and P. A. Dirmeyer
5. **EVALUATING THE EFFECTS OF LAND COVER CHANGE ON THE HYDROLOGY OF THE MISSISSIPPI RIVER BASIN.** Tracy E. Twine, University of Wisconsin-Madison, Madison, WI; and M. T. Coe, J. D. Lenters, C. J. Kucharik, S. D. Donner, and J. A. Foley

6. **DETERMINATION OF ROUGHNESS LENGTHS FOR MOMENTUM AND HEAT OVER BOREAL FORESTS.** Rongqian Yang, NOAA/NWS/NCEP, Camp Springs, MD; and M. A. Friedl
7. **DETERMINANTS OF SGP97 SURFACE SOIL MOISTURE PATTERNS FROM ESTAR AND NOAH.** Christa D Peters-Lidard, NASA/GSFC, Greenbelt, MD; and P. E. O'Neill and A. Hsu
8. **CORRECTING WIND INDUCED ERRORS IN ATMOSPHERIC WATER AND ENERGY BUDGETS WITH APPLICATION TO THE MISSISSIPPI RIVER BASIN.** Hideki Kanamaru, Boston University, Boston, MA; and G. Salvucci
9. **A LOOK AT THE TEMPORAL AND SPATIAL SCALES OF THE INPUT AND OUTPUT FROM THE NOAH LAND SURFACE MODEL IN THE NORTH AMERICAN LDAS PROJECT.** Tajdarul Hassan Syed, University of South Carolina,Columbia, SC; and D. Lohmann, V. Lakshmi, and E. K. Paleologos
10. **EFFECTS OF PARAMETERIZATIONS OF CANOPY PROCESSES ON SNOW SURFACE ENERGY BUDGETS.** Guo-Yue Niu, The University of Texas at Austin, Austin, Texas; and Z.-L. Yang
11. **CLOUD VARIABILITY OVER THE US IN OBSERVATIONS AND ANALYSES.** Haig Iskenderian, Northrop Grumman Information Technology, Reading, MA; and T. D. Schwebach
12. **SIMULATIONS OF SOUTHERN MISSISSIPPI FLOOD OF MAY 8-10, 1995 WITH A PENN STATE/NCAR MESOSCALE MODEL (MM5):** Suseela Reddy Remata, Jackson State University, Jackson, MS; and M. V. Vatti and P. Croft.
13. **MODEL SIMULATIONS OF SEA SURFACE TEMPERATURES, SALINITIES AND RIVER DISCHARGE IN MISSISSIPPI SOUND AND THEIR INFLUENCE ON FISH POPULATIONS:** Paulinus Chigbu, NOAA/AOML, Jackson, MS
14. **EVALUATION OF SEASONAL PREDICTIVE SKILL OF A REGIONAL CLIMATE MODEL:** Francis Ochieng Otieno, Iowa State University Geology and Atmospheric Science, Ames, IA; and W. Gutowski, E. S. Takle, C. J. Anderson, Z. Pan, and R. W. Arritt
15. **ENVIRONMENTAL RISKS ASSESSMENT INTEGRATIVE SYSTEMS APPROACH (ERAISA) WITH:** Paul J. Croft,, NOAA/AOML, Jackson, MS
16. **SEASONAL PREDICTABILITY OF DAILY PRECIPITATION: HEAVY PRECIPITATION FREQUENCY OVER THE CONTIGUOUS US:** Alexander Gershunov, SIO/Univ. Of California, La Jolla, CA; and D. Cayan and T. Barnett
17. **PRECIPITATION ASSIMILATION IN NCEP REGIONAL REANALYSIS.** Perry Shafran, NOAA/NWS/NCEP/EMC and SAIC, Camp Springs, MD; and W. Ebisuzaki, Y. Lin, Y. Fan, W. Higgins, K. Mitchell, E. Rogers, W. Shi, G. DiMego, E. Kalnay, and F. Mesinger
18. **PRECIPITATION ANALYSES IN SUPPORT OF GAPP MODELING INITIATIVES**. Evgeney Yarosh, NOAA/NWS/NCEP/CPC, Camp Springs, MD; and W. Shi and W. Higgins

19. **IDENTIFICATION OF PRECIPITATION MICROCLIMATES AND RAINFALL TRENDS ACROSS THE LAKE PONTCHARTRAIN BASIN OF SOUTHEAST LOUISIANA** . Suzanne Van Cooten, NOAA/NWSFO New Orleans-Baton Rouge, Slidell, LA; and D. D. Barbe', D. J. A. McCorquodale, and D. G. Cothren
20. **VARIABILITY OF PRECIPITATION IN BRAZIL: DATA AND APPLICATIONS**. Wei Shi, NOAA/NWS/NCEP/CPC, Camp Springs, MD; and R. W. Higgins, E. Yarosh, and V. E. Kousky
21. **DESCRIPTION AND VALIDATION OF THE ORA SUITE OF SATELLITE QPE PRODUCTS**. Robert J. Kuligowski, ORA, Camp Springs, MD; and S. Qiu, R. A. Scofield, and A. Gruber
22. **APPLICATIONS OF AMSU MILLIMETER WAVELENGTH CHANNELS FOR GLOBAL PRECIPITATION ESTIMATES.** Limin Zhao, QSS Group, Inc, Comp Springs, MD; and F. Weng and R. Ferraro
23. **A COMPARATIVE STUDY OF SATELLITE TROPICAL RAINFALL ESTIMATION AND MESOSCALE MODELING FOR THE NORTH AMERICANMONSOON REGION.** Xiaogang Gao, University of Arizona, Tucson, AZ; and J. Li, R.A. Maddox, K. Hsu, and S. Sorooshian
24. **CALIBRATION OF PQPF FORECASTS BASED ON THE NCEP GLOBAL ENSEMBLE.** Yuejian Zhu, SAIC at NOAA/NWS/NCEP, Camp Springs,, MD; and Z. Toth
25. **SPATIOTEMPORAL SOURCE/SINK ANALYSIS OF PRECIPITATION AND EVAPOTRANSPIRATION IN THE MISSISSIPPI BASIN.** Kaye L Brubaker, University of Maryland College Park, College Park, MD; and A. Sudradjat and P. A. Dirmeyer
26. **REGIONAL HYDROCLIMATE VARIABILITY ASSOCIATED WITH NORTH AMERICAN SUMMER MONSOON: RAINFALL VARIABILITY AND THE EFFECTS OF SOIL MOISTURE CONTENT**. Jinwon Kim, University of California Los Angeles, Los Angeles, CA; and J. D. Farrara
27. **OROGRAPHIC INFLUENCES ON THE MULTI-SCALE STATISTICAL PROPERTIES OF PRECIPITATION.** Deborah K. Nykanen, Michigan Technological University, Houghton, MI; and D. Harris
28. **NUMERICAL SIMULATION OF THE NORTH AMERICAN MONSOON CIRCULATION: LARGE-SCALE LOCAL AND REMOTE SOURCES OF WATER DURING ONSET.** Michael G. Bosilovich, NASA, Greenbelt, MD; and Y. Sud, G. K. Walker, and S. D. Schubert
29. **NUMERICAL SIMULATION FOR EXTREME SOUTHWEST ALABAMA SEA AND BAY BREEZE IN WEAK SHEAR ENVIRONMENT.** Duanjun Lu,Jackson State University, Jackson, MS; and P. J. Croft and J. M. Medlin
30. **LAND SURFACE PROCESSES, HORIZONTAL RESOLUTION AND THE SIMULATION OF PRECIPITATION IN THE NAMS REGION.** Andrea N Hahmann, Intitute of Atmospheric Physics, Univerity of Arizona, Tucson, AZ
31. **IMPROVEMENTS TO THE WSR-88D SNOW ACCUMULATION ALGORITHM**. Steven Hunter and E. W. Holroyd III.

Wednesday, May 15, 2002

7:30 am - 5:00 pm Registration (Prefunction Area 3rd Floor)

8:30am - 10:00am Session C.1 Plenary (Magnolia III)

Chair: Ken Mooney

8:30am - 9:00am **CLIMATE RESEARCH** (Eugene Rasmusson)

9:00am - 9:30am **HISTORY OF GCIP AND LESSONS FOR RESEARCH MANAGEMENT (**Rick Lawford)

9:30am - 10:00am **GAPP AND THE NORTH AMERICAN MONSSON EXPERIMENT (NAME)** (Wayne Higgins)

8:30am - 6:00pm SCIENCE TEACHER'S WORKSHOP (Magnolia II)

9:00am – 9:30am Introductions & Ice Breaker (Patty Watts)

9:30am – 10:00am GAPP Activities & Water Cycle (Rick Lawford)

10:00am – 11:00am Climate (Rick Lawford)

11:00am – 12:00pm Hydrologic Cycle (Water Wonders 1, Patty Watts)

12:00pm – 1:00pm Lunch

1:00pm – 3:00pm Water in the Earth System (AMS)

3:00pm – 3:30pm Global Warming (Water Wonders 2, Lynn LeBlanc)

3:30pm – 4:000pm Reflection (Patty Watts)

10:30am - 12:10pm Session C.2 Data Assimilation (I) (Azalea II)

Chair: Matt Rodell

1. **GENETIC ALGORITHM BASED IMAGE REGISTRATION AUTOMATIC MORPHING: APPLICATION TO CONTINUOUS TRACKING OF RAIN FIELDS:** Jearanai Vongssard, George Mason University, Fairfax, VA; and L. Chiu, T. El-Ghazawi, J. Weinman, and R. Yang

2. **THE GAPP/GCIP MULTI-INSTITUTION NORTH AMERICAN LAND DATA ASSIMILATION SYSTEM (N-LDAS):** Kenneth E. Mitchell, NCEP/EMC (NOAA/NWS), Camp Springs, MD; and P. Houser, J. Schaake, E. Wood, A. Robock, D. Lettenmaier, D. Lohmann, B. Cosgrove, Q. Duan, J. Sheffield, L. Luo, W. Higgins,D. Tarpley, R. Pinker, and J. Meng
3. **REAL-TIME AND RETROSPECTIVE FORCING IN THE NORTH AMERICAN LAND DATA ASSIMILATION SYSTEM (N-LDAS) PROJECT:** Brian A. Cosgrove, SAIC and NASA/GSFC, Greenbelt, MD; and D. Lohmann, K. E. Mitchell, P. R. Houser, E. F. Wood, J. Schaake, D. P. Lettenmaier, A. Robock, L. Luo, Q. Duan, J. Sheffield, J. Meng, W. Higgins, R. Pinker, D. Tarpley, and Y. Lin
4. **AN INTERCOMPARISON OF NORTH AMERICAN LDAS SOIL MOISTURE FIELDS**: John Schaake, NOAA/NWS, Silver Spring, MD; and Q. Duan, K. Mitchell, P. Houser, E. Wood, D. Lettenmaier, A. Robock, B. Cosgrove, D. Lohmann, L. Luo, J. Sheffield, W. Higgins, R. Pinker, and D. Tarpley
5. **NWS-CPC'S MONITORING AND PREDICTION OF US SOIL MOISTURE AND ASSOCIATED LAND SURFACE VARIABLES: TRANSITION TO LDAS**. Yun Fan, Climate Prediction Center, Camp Springs, MD; and D. Lohmann, H. M. van den Dool, K. Mitchell, and J. Huang

10:30am - 12:10pm Session C.3 Warm-Season Precipitation (I) (Magnolia III)

Chair: Kingtse Mo

1. **COMMENTS ON FORECASTING WARM SEASON PRECIPITATION: A COUPLED MULTI-SCALE PROGRAM**: Eugene Rasmusson, Univ. of Maryland.
2. **THE IMPACT OF TROPICAL CYCLONE RAINFALL ON SUMMER RAINFALL REGIMES IN MEXICO:** Arthur V. Douglas, Creighton University, Omaha, NE; and P. J. Englehart
3. **GLOBALLY UNIFIED MONSOON ONSET AND RETREAT INDEXES:** Xubin Zeng, University of Arizona, Tucson, AZ; and E. Lu
4. **AN EXAMINATION OF THE INTERANNUAL VARIABILITY OF THE NORTH AMERICAN MONSOON IN THE UCLA AGCM:** John D. Farrara, University of California Los Angeles, Los Angeles, CA; and J. Kim and J. Y. Yu
5. **MODELING AND MONITORING OF PRECIPITATION DURING THE NORTH AMERICAN MONSOON:** David J. Gochis, University of Arizona, Tucson, AZ; and W. J. Shuttleworth, C. Watts, and J. Garatuza-Payaen

10:30am - 12:10pm Session C.4 Human Dimensions, Health & Hydrology: A Drought of Integration, A Flood of Need (Magnolia I)

Chair: Juli Trtanj and Nancy Beller-Simms

1. **WHO WANTS CLIMATE FORECASTS? COMMUNITY WATER SYSTEM MANAGERS' PERCEPTIONS OF THEIR NEED FOR CLIMATE INFORMATION.** Brent Yarnal, Pennsylvania State University
2. **MOVING WATER: WATER BANKS, FORECASTS, AND OBSTACLES.** John D. Wiener, University of Colorado
3. **ON THE INTEGRATION OF REMOTE SENSING, CLIMATE FORECASTING, HYDROLOGY, AND INFECTIOUS DISEASE EPIDEMIOLOGY: RIFT VALLEY FEVER IN EAST CENTRAL AFRICA:** Jonathan Davis, Dynamics Technology, Inc.
4. **MOSQUITO SIMULATION MODEL DRIVEN BY WEATHER, HYDROLOGY AND AGRICULTURAL PRACTICES FOR THE RICE AGROECOSYSTEM:** Dana Focks, Infectious Disease Analysis
5. **REGIONAL SYSTEM FOR FLASH FLOOD GUIDANCE IN CENTRAL AMERICA.** Theresa Carpenter, Hydrologic Research Center

1:30pm - 6:00pm SCIENCE FIELD TRIP (USACE)

7:00pm - 8:30pm BANQUET DINNER (TBD)

Thursday, May 16, 2002

7:30 am - 5:00 pm Registration **(**Prefunction Area 3rd Floor)

8:30am - 10:00am Session D.1 Plenary (Magnolia III)

Chair: Roni Avissar

8:30am - 9:00am **NOAA Climate Research** (Ken Mooney)

9:00am - 9:30am **CONTRIBUTIONS OF THE GCIP/GAPP CORE PROJECT TO NCEP OPERATIONAL PREDICTION MODELS** (Ken Mitchell)

9:30am -10:00am **GCIP CONTRIBUTION TO HYDROLOGY** (John Schaake)

8:30am - 6:00pm SCIENCE TEACHER'S WORKSHOP (Magnolia II)

9:00am – 10:30am The Seasons (Eric Pani)

10:30am – 11:30am Differential Heating (Eric Pani)

11:30am – 12:30pm Lunch

12:30pm – 1:30pm Temperature, Pressure & Winds (Lynn LeBlanc)

1:30pm – 2:30pm Plants (Patty Watts)

2:30pm – 3:00pm Reflection (Patty Watts)

3:00pm – 4:30pm Tour of Poster Session & Interaction With Scientists

*10:30am; 12:30pm; 2:30pm, 5:30pm; (Tentative time schedules) *Buses to the NOAA Aircraft Exhibit (WP3D Hurricane Hunter and Turbo Commander Hydrometeorology Aircraft – New Orleans Lakefront Airport)*

10:30am - 12:10pm Session C.2 Data Assimilation (II) (Magnolia III)

Chair: Matt Rodell

1. **VALIDATION OF NORTH AMERICAN-LDAS MODELED ENERGY BUDGETS:** Eric F. Wood, Princeton University, Princeton, NJ; and J. Meng, F. Wen, K. Mitchell, P. R. Houser, J. Schaake, A. Robock, D. P. Lettenmaier, D. Lohmann, B. Cosgrove, Q. Duan, J. Sheffield, L. Luo, W. Higgins, R. Pinker, and D. Tarpley
2. **EVALUATION OF NORTH AMERICAN LDAS LAND SURFACE MODELS WITH OBSERVED SURFACE FLUXES, SOIL MOISTURE, AND SOIL TEMPERATURE:** Alan Robock, Rutgers University, New Brunswick, NJ; and L. Luo, K. E. Mitchell, P. R. Houser, E. F. Wood, J. C. Schaake, D. P. Lettenmaier, B. A. Cosgrove, Q. Duan, D. Lohmann, J. Sheffield, W. Higgins, R. T. Pinker, D. Tarpley, K. C. Crawford, and J. B. Basara
3. **VALIDATION OF NORTH AMERICAN LDAS RETROSPECTIVE FORCING WITH STATION OBSERVATIONS AND MODEL EXPERIMENTS:** Lifeng Luo, Rutgers University, New Brunswick, NJ; and A. Robock, K. E. Mitchell, P. R. Houser, E. F. Wood, J. C. Schaake, D. P. Lettenmaier, D. Lohmann, B. A. Cosgrove, Q. Duan, J. Sheffield, J. Meng, W. Higgins, R. T. Pinker, D. Tarpley, K. C. Crawford, and J. B. Basara

4. **EVALUATION OF STREAMFLOW AND SNOWPACK SIMULATIONS IN THE LAND SURFACE MODELS OF THE NORTH AMERICAN LAND DATA ASSIMILATION (LDAS) PROJECT:** Dag Lohmann, NOAA/NWS/NCEP, Suitland, MD; and M. Pan, K. Mitchell, E. F. Wood, P. R. Houser, J. Schaake, D. Lettenmaier, A. Robock, B. Cosgrove, Q. Duan, J. Sheffield, L. Luo, J. Meng, W. Higgins, R. Pinker, and D. Tarpley
5. **USE OF MODIS-DERIVED SNOW FIELDS IN THE GLOBAL LAND DATA ASSIMILATION SYSTEM:** Matthew Rodell, NASA/GSFC, Greenbelt, MD; and P. Houser, U. Jambor, J. Gottschalck, J. Meng, K. Arsenault, N. DiGirolamo, and D. Hall

10:30am - 12:10pm Session D.3 Warm-Season Precipitation (II) (Azalea II)

Chair: Kingtse Mo

1. **IMPACT OF SOIL MOISTURE ON THE U. S. SUMMER PRECIPITATION:** Kingtse C. Mo, NOAA/NWS/NCEP/CPC, Camp Springs, Maryland; and H. M. H. Juang and M. Kanamitsu
2. **MULTISCALE DIAGNOSIS OF THE NORTH AMERICAN MONSOON SYSTEM USING A VARIABLE RESOLUTION GCM:** Ernesto Hugo Berbery, University of Maryland, College Park, MD; and M. Fox-Rabinovitz
3. **SEASONAL VARIABILITY OF THE NORTH AMERICAN MONSOON PRECIPITATION AND ITS ASSOCIATED MOISTURE TRANSPORT:** Mingfang Ting, University of Illinois at Urbana-Champaign, Urbana, IL; and R. Joseph, X.-Z. Liang, and L. Li
4. **EXAMINATIONS OF LINKAGES BETWEEN THE NORTHWEST MEXICAN MONSOON AND GREAT PLAINS PRECIPITATION:** Stephen M Saleeby, Atmospheric Science Department - Colorado State University, Fort Collins, CO; and W. R. Cotton, Sr.
5. **EXPLORING THE INTERACTION OF THE NORTH AMERICAN MONSOON AND LAND SURFACE DYNAMICS:** Kristi R. Arsenault, University of Maryland, Baltimore County, Greenbelt, MD; and J. K. Entin and P. Houser

10:30am -12:10pm Session D.4 Nutrient Loading in the Mississippi River Basins (Magnolia I)

Chair: John Day

1. **REDUCING NITROGEN LOADING TO THE GULF OF MEXICO FROM THE MISSISSIPPI RIVER BASIN.** John W. Day, Jr, Louisiana State University, Baton Rouge, LA; and W. J. Mitsch
2. **EVALUATING THE IMPACTS OF LAND MANAGEMENT AND CLIMATE VARIABILITY ON NITRATE EXPORT IN THE UPPER**

MISSISSIPPI BASIN. Simon D. Donner, University of Wisconsin, Madison, Wisconsin; and M. T. Coe and C. J. Kucharik

3. **IMPLICATIONS OF GLOBAL CLIMATE CHANGE FOR THE NORTHERN GULF OF MEXICO: AN INVERSE APPROACH TO SCIENTIFIC CONTROVERSY.** D. Justic, Louisiana State University, Baton Rouge, Louisiana; and N. N. Rabalais, R. E. Turner, B. Wissel, and Z. J. Quinones
4. **NITROGEN AND PHOSPHORUS CONCENTRATION AND RETENTION IN WATER FLOWING OVER RIVERINE WETLANDS**: R. Eugene Turner, Louisiana State University, Baton Rouge, LA
5. **INDUCTIVE MODELING OF NUTRIENT LOADINGS IN STREAMS**: Ramesh S. V. Teegavarapu, Tracey Farmer Center for the Environment, University of Kentucky, Lexington, USA, Lexington, KY; and A. A. Elshorbagy and L. Ormsbee

1:30pm - 3:10pm Session D.5 Coupled Land-Atmosphere Models(I) (Magnolia III)

Chair: Yongkang Xue

1. **PRELIMINARY RESULTS FROM THE 2ND MODEL PARAMETER ESTIMATION EXPERIMENT (MOPEX):** Qingyun Duan, NOAA/NWS, Silver Spring, MD; and J. Schaake, V. Koren, K. Mitchell, and D. Lohmann
2. **IMPROVING THE REPRESENTATION OF SNOW HYDROLOGY IN GLOBAL AND REGIONAL CLIMATE MODELS:** Susan Marshall, University of North Carolina, Charlotte, Charlotte, NC; and R. J. Oglesby
3. **PROVIDING REALISTIC VEGETATION PHENOLOGICAL DESCRIPTION FOR NORTH AMERICAN MONSOON SIMULATION USING CENTURY ECOLOGICAL MODEL:** Lixin Lu, Colorado State University, Fort Collins, CO; and J. Shuttleworth, M. Hartman, and D. Ojima
4. **PARAMETER ESTIMATION FOR COUPLED LAND SURFACE MODELS:** Luis A Bastidas, University of Arizona, Tucson, AZ; and H. V. Gupta, Y. Liu, and S. Sorooshian
5. **THE USE OF THE REGIONAL ATMOSPHERIC MODELING SYSTEM (RAMS) TO INVESTIGATE THE IMPACT OF LAND SURFACE PROCESSES IN THE GAPP/GCIP REGION:** Roger A. Pielke, Sr., Colorado State University, Fort Collins, CO; and G. E. Liston, C. L. Castro, J. L. Eastman, L. Lu, C. H. Marshall, and J. E. Strack

1:30pm - 3:10pm Session D.6 Regional Integrated Sciences & Assessments (Azalea II)

Chair: Harvey Hill

1. **AN IMPROVED FORCE-RESTORE MODEL FOR LAND-SURFACE MODELING**. Diandong Ren, CAPS/Univ. of Oklahoma, Norman, OK; and M. Xue
2. **HYDRO-CLIMATE RESEARCH IN THE CIRES-NOAA WESTERN WATER ASSESSMENT**. Martyn P. Clark, CIRES/Univ. of Colorado, Blulder, CO

3. **INTEGRATED ASSESSMENT IN SUPPORT OF WATER MANAGEMENT IN THE SOUTHWEST.** Roger Bales, University of Arizona, Tucson, AZ; and H. Hartmann and S. Sorooshian
4. **INTEGRATING PHYSICAL AND SOCIAL SCIENCE RESEARCH TO EVALUATE THE RESILIENCE OF PACIFIC NORTHWEST WATER RESOURCES TO CLIMATE VARIABILITY AND CHANGE .** Amy K. Snover, University of Washington, Seattle, WA; and E. L. Miles, A. F. Hamlet, and D. P. Lettenmaier
5. **OBSERVATION AND SIMULATION OF THE SPATIAL DISTRIBUTION OF SNOW AND SOIL FROST IN THE UPPER MISSISSIPPI RIVER BASIN**. Keith Aric Cherkauer, University of Washington, Seattle, WA; and D. P. Lettenmaier and J. M. Baker

3:30pm - 4:30pm Session D.7 Poster Plenary (II) (Magnolia III)

Chair: Jin Huang

4:30pm - 6:30pm Poster Viewing and Reception (Azalea I)

1. **RETROSPECTIVE IN-LDAS LAND SURFACE HYDROLOGIC FLUXES AND STATE VARIABLES, 1950-2000:** Edwin P. Maurer, University of Washington, Seattle, WA; and A. W. Wood, J. C. Adam, B. Nijssen, D. P. Lettenmaier, and E. F. Wood
2. **CLOUD/HYDROMETEOR ASSIMILATION INTO THE 20-KM RUC USING GOES CLOUD-TOP AND NEXRAD REFLECTIVITY DATA:** Dongsoo Kim, CIRES/Univ. of Colorado, Boulder, CO; and J. M. Brown and S. G. Benjamin
3. **AN EVALUATION OF THE VALUE OF MEASURED MICROWAVE BRIGHTNESS TEMPERATURES FOR DATA ASSIMILATION:** Eleanor J. Burke, University of Arizona, Tucson, AZ; and W. J. Shuttleworth and R. C. Harlow
4. **WARM-SEASON PRECIPITATION IN THE NEBRASKA SAND HILLS: SENSITIVITY TO MOISTURE HOLDING PROPERTIES OF THE SOIL.** Clinton M. Rowe, University of Nebraska, Lincoln, NE; and M. R. Anderson, J. W. Kaiser, D. B. Radell, Q. Hu, and X. Chen
5. **VARIABLE INFILTRATION CAPACITY (VIC) COLD LAND PROCESS MODEL UPDATES**: Keith A. Cherkauer, University of Washington, Seattle, WA; and L. C. Bowling, D. P. Lettenmaier, and E. F. Wood
6. **THE IMPACT OF VEGETATION ROOT DISTRIBUTION, FRACTIONAL VEGETATION COVER, AND LEAF AREA INDEX ON SEASONAL GLOBAL SIMULATIONS:** Michael Barlage, University of Arizona, Tucson, AZ; and X. Zeng
7. **THE IMPACT OF INITIAL SOIL MOISTURE AMOUNT AND SPATIAL DISTRIBUTION ON THE SIMULATION OF PRECIPITATION DURING THE 1995, 1996, AND 1997 GCIP ESOPS:** Matei Georgescu, Rutgers University, New Brunswick, NJ; and C. P. Weaver, R. Avissar, and R. L. Walko

8. **A PREFERRED DYNAMICAL SCALE FOR LANDSCAPE-FORCED MESOSCALE CIRCULATION?:** Somnath Baidya Roy, Princeton University, Princeton, NJ; and C. P. Weaver, D. S. Nolan, and R. Avissar
9. **AN ESTIMATE OF THE SENSITIVITY OF LARGE-SCALE MODEL SIMULATIONS TO THE MOSAIC-OF-TILES APPROACH TO LAND-ATMOSPHERE COUPLING:** A CASE STUDY OVER THE GCIP REGION. Lifeng Luo, Rutgers University, New Brunswick, NJ; and C. P. Weaver, R. Avissar, and A. Robock
10. **ATMOSPHERIC RESPONSE TO GROUNDWATER INPUT: A SENSITIVITY STUDY IN THE NEBRASKA SAND HILLS:** Clinton M. Rowe, University of Nebraska, Lincoln, NE; and M. R. Anderson, J. W. Kaiser, D. B. Radell, Q. Hu, and X. Chen
11. **EVALUATION OF CARBON FLUX SIMULATIONS OVER THE SOUTHWEST US:** Hoshin V. Gupta, University of Arizona, Tucson, AZ; and L. A. Bastidas, T. S. Hogue, W. Emmerich, and S. Sorooshian
12. **INVESTIGATION OF DEEP SOIL TEMPERATURE-ATMOSPHERE INTERACTION IN NORTH AMERICA:** Yongkang Xue, UCLA, Los Amgeles, CA; and L. Yi, M. Ruml, and R. Vasic
13. **SIMULATING A SNOWMELT PERIOD USING COUPLED SVAT, SURFACE HYDROLOGY AND GROUNDWATER MODELS:** W. J. Capehart, Institute of Atmospheric Sciences, Rapid City, SD; and C. Schlosser
14. **LAND-SURFACE PARAMETERIZATIONS IN NORTHERN REGIONS: RESULTS FROM PILPS PHASE 2(E):** Laura C. Bowling, University of Washington, Seattle, WA; and B. Nijssen and D. P. Lettenmaier
15. **OPTIMAL PARAMETER AND UNCERTAINTY ESTIMATION WITHIN CLIMATE AND LAND SURFACE MODELS USING BAYESIAN STOCHASTIC INVERSION:** Charles S. Jackson, University of Texas-Austin, Austin, TX; and M. Sen and P. Stoffa
16. **OPTIMAL PARAMETER ESTIMATION AND UNCERTAINTY ANALYSIS OF A LAND SURFACE MODEL USING THE CABAUW DATASET:** Youlong Xia, University of Texas at Austin, Austin, TX; and C. Jackson, M. K. Sen, and P. L. Stoffa
17. **SCALING CARBON AND ENERGY EXCHANGE PROCESSES WITHIN LAND ATMOSPHERE MODELS:** Dev dutta S. Niyogi, North Carolina State University, Raleigh, NC; and Y. Xue and K. Alapaty
18. **SENSITIVITY OF A SIMULATED MESOSCALE CONVECTIVE SYSTEM TO HORIZONTAL RESOLUTION OF SOIL MOISTURE INITIALIZATION:** William Y.Y. Cheng, Colorado State University, Fort Collins, CO; and W. R. Cotton and S. M. Saleeby
19. **NCEP ETA ANALYSIS AND FORECAST SYSTEM. LAND-SURFACE MODEL CHANGES AND MODEL PERFORMANCE ASSESSMENT:** Michael Ek, NOAA/NWS/NCEP, Suitland, MD; and K. Mitchell, E. Rogers, Y. Lin, D. Lohmann, V. Koren, J. Schaake, Q. Duan, and D. Tarpley
20. **VERIFICATION OF ENSEMBLE STREAMFLOW FORECAST ALTERNATIVES FOR THE DES MOINES RIVER BASIN.** Tempei Hashino, Iowa Institute of Hydraulic Research and Department of Civil and Environmental

Engineering, University of Iowa, Iowa City, IA; and A. A. Bradley and S. S. Schwartz

21. **AN OVERVIEW OF GAPP CORE PROJECT HYDROLOGY AND WATER RESOURCE COMPONENT**. John Schaake, NOAA/NWS, Silver Spring, MD; and Q. Duan, S. C. G. Cong, M. Smith, V. Koren, K. Mitchell, and D. Lohmann
22. **DEMONSTRATION OF WATER RESOURCES MANAGEMENT APPLICATIONS OF GCIP RESEARCH PRODUCTS IN THE RED-ARKANSAS RIVER BASIN.** Curt Hartzell, US Bureau of Reclamation, Denver, CO; and D. Matthews, K. R. Arsenault, and P. R. Houser
23. **INCORPORATING ENSO SIGNALS IN SYNTHETIC STREAMFLOW MODELING.** David W. Watkins, Jr., Michigan Tech University, Houghton, MI; and S. M. O'Connell
24. **A BLUEPRINT FOR WEST-WIDE SEASONAL HYDROLOGIC FORECASTING.** Andrew W. Wood, University of Washington, Seattle, WA; and D. P. Lettenmaier, A. Kumar, and E. L. Miles
25. **MODELING OF GROUNDWATER FLOW AND ITS APPLICATION TO THE ANALYSIS OF THE WATER CYCLE IN THE NEBRASKA SAND HILLS.** Xunhong Chen, University of Nebraska-Lincoln, Lincoln, NE; and X. Chen, Q. S. Hu, C. Rowe, and M. Anderson
26. **SEASONAL MOISTURE FLUX VARIABILITY OVER NORTH AMERICA IN AMIP SIMULATION AND ATMOSPHERIC REANALYSES.** Alfredo Ruiz-Barradas, University of Maryland, College Park, MD; and S. Nigam
27. **USING LAND DATA ASSIMILATION SYSTEMS PRODUCTS TO IMPROVE STREAMFLOW FORECASTS.** Kristi R Arsenault, University of Maryland, Baltimore County, Greenbelt, MD; and P. R. Houser, C. Hartzell, and D. Matthews
28. **VALIDATION AND IMPROVEMENT OF SOIL MOISTURE MEASUREMENTS FROM THE NRCS/SCAN NETWORK:** Karen Humes, University of Idaho, Garry Schaefer, Mark Seyfried, Tom Jackson.
29. **ONLINE INTERACTIVE SEASONAL FORECAST EVALUATIONS: A TOOL FOR IMPROVING WATER RESOURCES MANAGEMENT.** Holly C Hartmann, University of Arizona, Tucson, AZ; and T. C. Pagano and S. Sorooshian
30. **SCALE FOR SCORING USEFULNESS OF CLIMATE FORECAST FOR AGRICULTURAL APPLICATION**. Shrikant Jagta, University of Florida
31. **WATERSHED WATER CHEMISTRY AND MODELING UNDER A PULSED RIVER DISCHARGE.** Enrique Reyes, Coastal Ecology Institute, Louisiana State University, Baton Rouge, LA; and E. Hyfield, R. Lane, and J. W. Day
32. **WATER QUALITY IN THE BRETON SOUND ESTUARY DURING THE SPRING 2001 PULSE OF DIVERTED MISSISSIPPI RIVER WATER**. Robert R. Lane, Louisiana State University, Baton Rouge, LA; and J. W. Day, Jr., D. Justic, B.Marx, J. N. Day, and E. Hyfield
33. **HYDROLOGIC TOPOLOGY**: Francisco Olivera, Texas A&M

7:00pm - 9:00pm Session D.8 Warm Season Precipitation Working Group (Azalea II)

Friday, May 17, 2002

7:30 am - noon Registration (Prefunction Area 3rd Floor)

8:30am - 10:00am Session E.1 Plenary (Magnolia III)

chair: David Carson

8:30am - 9:00am **NCEP REGIONAL REANALYSIS** (Fedor Mesinger)

9:00am - 9:30am **HYDROLOGIC MODELING AND WATER RESOURCES** (Dennis Lettenmaier)

9:30am -10:00 am **REGIONAL INTEGRATED SCIENCE AND ASSESSMENTS** (Roger Pulwarty)

8:30am - 3:00pm SCIENCE TEACHER'S WORKSHOP (Stennis Space Center)

8:00am – 9:00am Assemble & Depart for Stennis Space Center via Buses

9:00am – 12:00pm Internet Module (Eric Pani & Patty Watts)

12:00pm – 1:00pm Lunch

1:00pm – 2:00pm Teaching Tornado (Dave Gilhousen)

2:00pm – 3:30pm Tour of Little Red Schoolhouse Activities

3:30pm – 4:30pm Assemble & Depart for Wyndham Hotel via Buses

10:30am - 12:10pm Session E.2 Coupled Land-Atmosphere Models (II) (Azalea II)

Chair: Yongkang Xue

1. **SPACE-TIME VARIABILITY OF RAINFALL AND SOIL MOISTURE IN COUPLED LAND-ATMOSPHERE MODELING: ISSUES OF SCALE AND EFFECT ON PREDICTED WATER AND ENERGY FLUXES**: Deborah K. Nykanen, Michigan Technological University, Houghton, MI; and E. Foufoula-Georgiou
2. **USING INTEGRATED MODELING TECHNIQUES TO INVESTIGATE THE HYDROLOGICAL CYCLE IN THE NEBRASKA SAND HILLS:** Clinton M. Rowe, University of Nebraska, Lincoln, NE; and Q. Hu, M. R. Anderson, and X. Chen

3. **THE CO-EVOLUTION OF THE LARGE-SCALE MAGNITUDE AND MESOSCALE SPATIAL HETEROGENEITY OF PRECIPITATION AND SOIL MOISTURE OVER THE GCIP DOMAIN ON MONTHLY/SEASONAL TIMESCALES:** Christopher P. Weaver, Rutgers University, New Brunswick, NJ
4. **SNOW-CLIMATE INTERACTION IN THE NCAR CCM3:** Zong-Liang Yang, The University of Texas at Austin, Austin, Texas; and G.-Y. Niu
5. **MODELING TOPOGRAPHIC INFLUENCES ON SNOW DEPTH AND COVER: APPLICATIONS TO WESTERN U.S. WATER RESOURCES:** Andrea N Hahmann, University of Arizona, Tucson, AZ; and A. L. Mosor

10:30am - 12:10pm Session E.3 Climate & Water Resource Applications (I) (Magnolia III)

Chair: Eric Wood

1. **HYDROCLIMATIC ENSEMBLE FORECASTING FOR IMPROVED RESERVOIR MANAGEMENT:** Theresa M. Carpenter, Hydrologic Research Center, San Diego, CA; and K. P. Georgakakos, N. E. Graham, H. Yao, and A. P. Georgakakos
2. **ELEMENTS OF A SCIENCE INFUSION STRATEGY TO DEVELOP ENSEMBLE PRECIPITATION FORECASTS FOR NWS ADVANCED HYDROLOGIC PREDICTION SERVICES (AHPS):** John Schaake and Q. Duan, NOAA/NWS, Silver Spring, MD
3. **IMPLEMENTING CLIMATE FORECASTS IN ENSEMBLE PREDICTION SYSTEM FORECASTS:** David Reed, NOAA/NWS, Slidell, LA; and E. Jones and B. Stucky
4. **ASSESSMENT OF BIAS-CORRECTION METHODS FOR PROBABILISTIC FORECASTS OF MONTHLY STREAMFLOW VOLUMES:** Tempei Hashino, Iowa Institute of Hydraulic Research and Department of Civil and Environmental Engineering, University of Iowa, Iowa City, IA; and A. A. Bradley and S. S. Schwartz
5. **OPERATIONAL MODELING OF THE FLOOD OF 2001 USING THE MISSISSIPPI RIVER BASIN MODELING SYSTEM:** Brian M Astifan, US Army Corps of Engineers, Rock Island District, Rock Island, IL

1:30pm - 3:10pm Session E.4 Climate & Water Resource Applications (II) (Magnolia III)

Chair: Allen Bradley

1. **USE OF SEASONAL CLIMATE FORECASTS FOR WATER RESOURCES MANAGEMENT IN THE TENNESSEE RIVER:** L. Ruby Leung, PNNL, Richland, WA; and M. Wigmosta and L. Vail
2. **ASSESSING THE UTILITY OF FORECASTS FOR WATER RESOURCES MANAGEMENT IN THE OHIO RIVER BASIN:** J. Rolf Olsen, U.S. Army

Corps of Engineers, Institute for Water Resources, Alexandria, VA; and J. L. Tsang and E. Z. Stakhiv

3. **US CONTRIBUTIONS TO THE HYDROLOGY FOR ENVIRONMENT, LIFE AND POLICY (HELP) INITIATIVE**: Susanna Eden, USGCRP, Washington, DC; and R. Lawford
4. **THE ROLE OF SOIL MOISTURE & GROUNDWATER IN MODULATING RUNOFF RESPONSE TO CLIMATE & LANDUSE FORCING -- WASHITA RIVER BASIN:** Christopher J. Duffy, Pennsylvania State University, University Park, PA; and K. Sedmera
5. **CHANGES IN THE LOWER BOUNDARY CONDITION OF WATER FLUXES IN THE NOAH LAND SURFACE SCHEME:** Dag Lohmann, NOAA/NWS/NCEP, Suitland, MD; and C. Peters-Lidard

1:30pm -3:10pm Session E.5 Remote Sensing Science (Azalea II)

Chair: TBD

1. **APPLICATION OF A PLANE STRATIFIED EMISSION MODEL TO PREDICT THE EFFECTS OF VEGETATION ON PASSIVE MICROWAVE RADIOMETRY.** Khil-ha Lee, University of Arizona, Tucson, AZ; and E. J. Burke, W. J.Shuttleworth, and R. C. HarlowCL
2. **CLOUD DETECTION AND SNOW MAPPING IN REPROCESSING OF GCIP/GAPP RADIATIVE FLUXES**. Xu Li, University of Maryland, College Park, MD; and R. T. Pinker, K. Mitchell, P. R. Houser, E. F. Wood, J. Schaake, A. Robock, D.Lettenmaier, J. D. Tarpley, W. Higgins, and T. North American LDAS Team
3. **PROGRESS TO DERIVE IMPROVED SURFACE RADIATION BUDGETS FOR THE GLOBAL ENERGY AND WATER CYCLE EXPERIMENT (GEWEX) CONTINENTAL-SCALE INTERNATIONAL PROJECT AND THE GEWEX AMERICAS PREDICTION PROJECT (GCIP/GAPP).** Rachel T. Pinker, University of Maryland, College Park, MD; and J. D. Tarpley, K. Mitchell, X. Li, T. Kassabova, H. Liu, I. Laszlo, P. R. Houser, E. F. Wood, J. Schaake, A. Robock, D. P. Lettenmaier, W. Higgins, B. A. Cosgrove, D. Lohmann, J. Sheffield, L. Luo, Q. Duan, and T. N. A. LDAS Team.
4. **SNOW FRACTION MONITORING OVER NORTH AMERICA**. Peter Romanov, NOAA/NESDIS, Camp Springs, MD; and D. Tarpley and T. Carroll
5. **UNDERSTANDING MICROWAVE EMISSION FROM LARGE-SCALE HETEROGENEOUS LAND SURFACES**. Eric F. Wood, Princeton University, Princeton, NJ; and W. J. Shuttleworth, W. Crow, E. Burke, and M. Drusch